

**WHAT IS CLAIMED IS:**

1. A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom to a distal end, an inner needle being disposed for slidable movement with the outer needle cannula; and

5 at least one shield being extensible from a retracted position to an extended position to enclose a distal end of the inner needle,

the shield including a binding member disposed within the shield and defining binding surfaces that form an aperture configured for slidable receipt of the inner needle between the retracted position and the extended position,

10 the binding member including at least one drag inducing member such that the at least one drag inducing member engages the inner needle during slidable receipt of the inner needle to create a drag force with the inner needle, the drag force and shield facilitating rotation of the binding member relative to a longitudinal axis of the inner needle such that the binding surfaces engage the inner needle to prevent slidable  
15 movement of the inner needle in the extended position of the shield,

the binding member further including a needle communicating surface extending therefrom such that the needle communicating surface is engageable with the inner needle to prevent rotation of the binding member,

a retainer for releasable engagement with the needle hub, and

20 the binding member further including a binding member reset surface aligned with a hub reset surface.

2. A medical needle shield apparatus as recited in claim 1, wherein the at least one drag inducing member defines a cavity that is substantially aligned with the aperture, the cavity being configured for slidable receipt of the needle to create the drag  
25 force with the needle.

3. A medical needle shield apparatus as recited in claim 1, wherein the binding member includes a substantially planar aperture plate that includes the binding surfaces that form the aperture.

4. A medical needle shield apparatus as recited in claim 3, wherein the at least one drag inducing member includes a pair of arms extending from the aperture plate.

5. A medical needle shield apparatus as recited in claim 3, wherein the arm  
5 includes a deflectable member.

6. A medical needle shield apparatus as recited in claim 1, wherein the binding member is rotatable, relative to a longitudinal axis of the inner needle, between a non-binding orientation whereby the inner needle is slidable relative to the binding member and a binding orientation whereby the binding surfaces engage the inner needle  
10 to prevent slidable movement of the inner needle in the extended position of the at least one shield.

7. A medical needle shield apparatus as recited in claim 1, wherein the shield includes a housing that defines at least one blocking member extending from an interior surface thereof, the at least one blocking member being engageable with the binding  
15 member for urging the binding member to a binding orientation.

8. A medical needle shield apparatus as recited in claim 3, wherein the shield includes a housing that defines at least one blocking member extending from an interior surface thereof, the aperture plate being axially movable for engagement with the at least one blocking member that causes rotation of the binding member to a binding orientation.

20 9. A medical needle shield apparatus as recited in claim 1, wherein the at least one shield is supported for relative rotational movement by at least one bearing.

10. A medical needle shield apparatus as recited in claim 1, wherein the inner needle is attached to a handle for manipulation thereof.

11. A medical needle shield apparatus as recited in claim 1, wherein the  
25 needle hub is releasably mountable with a housing of the at least one shield.

12. A medical needle shield apparatus as recited in claim 1, wherein the needle hub defines a hub slot that is configured to receive the retainer of the binding member.

13. A medical needle shield apparatus as recited in claim 1, wherein the binding member includes at least one outwardly arcuate arm that extends to the needle communicating surface.

14. A medical needle shield apparatus as recited in claim 1, further comprising  
5 a plurality of shields.

15. A medical needle shield apparatus as recited in claim 1, wherein said binding member reset surface comprises the distal facing surface of said retainer.

16. A medical needle shield apparatus as recited in claim 1, wherein said hub reset surface is configured to deflect said binding member reset surface to facilitate  
10 rotation of the binding member relative to said longitudinal axis such that said binding surface disengages the inner needle.

17. A medical needle shield according to claim 1, wherein said medical needle is adapted for bone biopsy.

18. A medical needle shield according to claim 1, wherein said medical needle  
15 is adapted for catheter introduction to a patient.

19. A medical needle shield apparatus as recited in claim 1, wherein said hub reset surface is separate from said hub and urged by a spring toward said binding member reset surface.

20. A medical needle shield apparatus of claim 19, further comprising a luer  
20 male taper configured with said hub.

21. A medical needle shield according to claim 1, wherein said medical needle operates in communication with a port access device.

22. A medical needle shield according to claim 1, further comprising a protective needle sheath member.

25 23. A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom, an inner needle being disposed for slidable movement with the outer needle cannula; and

a shield being extensible from a retracted position to an extended position to enclose a distal end of the outer needle cannula,

the shield including a binding member disposed within the shield and defining binding surfaces that form an aperture configured for slidable receipt of the outer needle  
5 cannula between the retracted position and the extended position,

the binding member including at least one drag inducing member such that the at least one drag inducing member engages the outer needle cannula during slidable receipt of the outer needle cannula to create a drag force with the outer needle cannula, the drag force and shield facilitating rotation of the binding member relative to a longitudinal axis  
10 of the outer needle cannula such that the binding surfaces engage the outer needle cannula to prevent slidable movement of the outer needle cannula in the extended position of the shield, and

the binding member further including a needle communicating surface extending therefrom such that the needle communicating surface is engageable with the outer  
15 needle cannula to prevent rotation of the binding member.

24. A medical needle shield apparatus as recited in claim 23, wherein the binding member is rotatable, relative to a longitudinal axis of the outer needle cannula, between a non-binding orientation whereby the outer needle cannula is slidable relative to the binding member and a binding orientation whereby the binding surfaces engage the  
20 outer needle cannula to prevent slidable movement of the outer needle cannula in the extended position of the shield.

25. A medical needle shield apparatus as recited in claim 23, wherein the shield includes a housing that defines at least one blocking member extending from an interior surface thereof, the binding member including an aperture plate being axially  
25 movable for engagement with the at least one blocking member that causes rotation of the binding member to a binding orientation.

26. A medical needle shield apparatus as recited in claim 23, wherein the shield includes a probe guide at a distal end thereof configured for receipt of a probe, the probe being configured for slidable movement with the outer needle cannula.

27. A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom to a distal end, an inner needle being disposed for slidable movement with the outer needle cannula, a handle being attached to the inner needle; and

5 a shield being releasably mountable to the needle hub and extensible from a retracted position to an extended position to enclose a distal end of the inner needle, the handle being disposed adjacent the shield,

the shield including a binding member disposed within the shield and defining binding surfaces that form an aperture configured for slidable receipt of the inner needle  
10 between the retracted position and the extended position,

the binding member including at least one drag inducing member such that the at least one drag inducing member engages the inner needle during slidable receipt of the inner needle to create a drag force with the inner needle, the drag force and shield facilitating rotation of the binding member relative to a longitudinal axis of the inner  
15 needle such that the binding surfaces engage the inner needle to prevent slidable movement of the inner needle in the extended position of the shield, and

the binding member further including a needle communicating surface extending therefrom such that the needle communicating surface is engageable with the inner needle to prevent rotation of the binding member, a retainer for releasable engagement  
20 with a hub slot of the needle hub, and a binding member reset surface aligned for engagement with a hub reset surface.

28. A medical needle shield apparatus as recited in claim 27, wherein the binding member is rotatable, relative to a longitudinal axis of the inner needle, between a non-binding orientation whereby the inner needle is slidable relative to the binding  
25 member and a binding orientation whereby the binding surfaces engage the inner needle to prevent slidable movement of the inner needle in the extended position of the shield.

29. A medical needle shield apparatus as recited in claim 27, wherein the shield includes a housing that defines at least one blocking member extending from an interior surface thereof, the binding member including an aperture plate being axially

movable for engagement with the at least one blocking member that causes rotation of the binding member to a binding orientation.

30. A medical needle shield apparatus as recited in claim 27, further comprising a luer slip or luer lock attachment feature.

5 31. A medical needle shield apparatus as recited in claim 27, further comprising a flash chamber in communication with the inner needle, the flash chamber having a fitting that facilitates connection to a medical device.

32. A medical needle shield apparatus comprising:

a needle hub having a needle cannula extending therefrom to a distal end;

10 at least one shield being extensible from a retracted position to an extended position to enclose a distal end of the needle cannula; and

a depth stop device slidably disposed on the needle cannula, said at least one shield being substantially disposed within said depth stop device.

33. A medical needle shield apparatus comprising:

15 a needle hub having an outer needle cannula extending therefrom to a distal end, an inner needle being disposed for slidable movement with the outer needle cannula; and

at least one shield being extensible from a retracted position to an extended position to enclose a distal end of the inner needle,

20 the needle shield further including a reset surface aligned with a hub reset surface for engagement therewith to allow reuse of the shield in a shielded configuration.